

CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A method of managing virtual routing forwarding (VRF) tables at a provider edge (PE) router of a L3 virtual private network (VPN), said PE router maintaining a VPN-IP master routing information base (RIB) and a sub-RIB for each said VRF table, comprising:

maintaining an import route target (ImpRT) tree comprising all ImpRT attributes currently configured on said PE router;

modifying an ImpRT attribute of a first VRF table in said PE router;

searching said ImpRT tree for a match to said modified ImpRT attribute to

identify a second VRF table in said PE router having a matching ImpRT attribute;

for peers supporting a route refresh feature, performing a route refresh operation only when said match is not found;

for peers that do not support the route refresh feature, maintaining rejected routes in a rejected routes tree;

searching for routes in a sub-RIB associated with said second VRF table; and

15 | copying said routes from said sub-RIB into said first VRF table based on all
16 | route target attributes configured for said first VRF table, including said modified
17 | ImpRT attribute.

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2 | 2. (Previously Presented) The method of claim 1, further comprising:
3 | maintaining a list of all ImpRT attributes at a PE node with said ImpRT tree,
4 | each ImpRT attribute being associated with all VRF tables that are currently
5 | configured with said modified ImpRT attribute.

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2 | 3. (Currently Amended) The method of claim 1, further comprising:
3 | adding said modified ImpRT attribute to said first VRF table.

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2 | 4. (Canceled)

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2 | 5. (Currently Amended) The method of claim 3, further comprising:
3 | updating said ImpRT tree to include an association between said modified
4 | ImpRT attribute and said first VRF table.

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2 | 6-7. (Canceled)

1 8. (Previously Presented) The method of claim 1, further comprising:

2 adding said routes to each VRF table in a routing database available at said
3 PE router.

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2 9. (Previously Presented) The method of claim 2, wherein said searching is
3 performed through said master RIB.

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2 10. (Previously Presented) The method of claim 9, wherein said master RIB
3 includes all routes in all VRF tables at said PE router and further includes all
4 routes that were filtered out at said PE router using ImpRT attributes.

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2 11. (Currently Amended) The method of claim 1, further comprising:

3 removing said ImpRT from said first VRF table.

1 12. (Currently Amended) The method of claim 11, further comprising:

2 parsing all routes in said first VRF table and removing all routes from said
3 first VRF table that no longer match said ImpRT of said first VRF table.

1 13. (Currently Amended) The method of claim 12, further comprising:
2 deleting all routes that no longer match from the sub-RIB of said first VRF
3 table.

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1 14. (Previously Presented) The method of claim 13, further comprising:
2 deleting in said master RIB every route that no longer matches any ImpRT
3 attribute in said ImpRT tree.

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1 15-18. (Canceled)

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